



**CITY OF HOUSTON
FIRE PREVENTION BUREAU
HOUSTON FIRE DEPARTMENT**



**LIFE SAFETY BUREAU (LSB) STANDARD 06, Rev 01
FIRE DEPOSITORY BOXES**

SUPERCEDES: LSB STANDARD 06 (9/28/04)

APPROVED BY:

/S/

**GEORGE MEADOWS
ACTING ASSISTANT FIRE MARSHAL**

DATE: 27 November, 2006

APPROVED BY:

/S/

**TYRONE G. FREEMAN
FIRE MARSHAL**

DATE: 27 November, 2006

LIFE SAFETY BUREAU (LSB) STANDARDS ARE ESTABLISHED IN ACCORDANCE WITH PROVISIONS OF THE CITY OF HOUSTON FIRE CODE. THEY ARE SUBJECT TO THE ADMINISTRATIVE SECTIONS COVERING – ALTERNATIVE MATERIALS AND METHODS, MODIFICATIONS, AND BOARD OF APPEALS.

LSB STANDARD 06, Rev 01

FIRE DEPOSITORY BOXES

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FIRE DEPOSITORY BOXES

SECTION 1 --- GENERAL

1.1 Scope

This standard provides a method of furnishing current, valid property information and means of emergency access for fire department personnel in all high-rise occupancies, and other facilities as may be required by the Fire Marshal as called for in the *Fire Code* or this standard.

1.2 Purpose

The purpose shall be to provide clarification of requirements and guidance to persons charged with providing and maintaining the Fire Depository Box, in high-rise buildings as prescribed by the *Fire Code*, and this standard, within a state of operational readiness and reliability.

This standard is subject to periodic review and updates, to accommodate changes in local need or requirements, changes in nationally recognized standards, in related technology, or where required by state or federal regulations.

SECTION 2 --- DEFINITIONS

2.1 Fire Depository Box (FDB)

A protective container, cabinet or box that houses the information manuals, packets and keys as may be required by this standard.

2.2 Key Box

A protective container or box used to house the fire department emergency access key(s). For Key Boxes, see LSB Standard 05, "Key Boxes".

2.3 High-rise Building

A high-rise building as defined by the *Building Code*. Generally, a building where the topmost occupiable floor is 75 feet above grade.

2.4 High-rise Survey Forms

Survey forms (HFD Form 27) that have been compiled by the HFD Operations Division, to provide a variety of fire and life-safety information about a building, its contents and its fire protection systems, that are necessary for use in event of an emergency within that building.

2.5 Mobility Impaired List

A list, by name, impediment and work location, of persons who may have some type of physical condition or hindrance that could encumber their self-evacuation from the floor of incident or the building in event of an emergency, or who would need assistance by other personnel or an emergency service. Persons with a short-term illness or injury need not be placed on this list. Floor Wardens and building security personnel should however be knowledgeable of any person who may be in need of assistance in evacuating during an emergency.

SECTION 3 --- GENERAL REQUIREMENTS

3.1 General Contents of Fire Depository Box (FDB)

The FDB shall contain only the following approved items and information:

1. Loose-leaf type binder containing required information sheets.
2. Building access keys.
3. Standardized floor plans (when not in the loose-leaf binder).

Exception: See Section 4.2 for buildings with 24-hour on-site security personnel.

3.2 Binder Information Sheets

A loose-leaf binder that is tabbed and indexed, shall contain the following completed information sheets:

1. **High Rise Survey forms** - At least **5 Sets** (HFD 27, Rev. 3/2002), Completed.
2. **Supplemental Information sheet.** See Section 3.7.
3. **Mobility Impaired List.** The most current dated Mobility Impaired List giving person(s) name, nature of impairment, work floor and location. (If **NO** Mobility Impaired Persons are employed within the building, provide a sheet of paper stating “**NO MOBILITY IMPAIRED – AS OF THIS DATE**”, and date the form). The dated Mobility Impaired List shall be reviewed, verified and updated at least every 6 months.
4. **Elevator Operating Instructions.** Detailed written instructions for elevator use. Should include elevator fire fighter re-call, cab use, and any other special details for elevator operations. (Instructions for elevator use should be obtained from building’s elevator service company.)
See Appendix B, “Instructions for Elevator Operation”.
5. **Elevator Diagram.** A side view diagram of all building’s elevator shafts, showing floors served by each elevator bank, any transfer floors, shuttle elevators, or private elevators. (Where possible show any dumb-waiter, mail cart or similar shaftways.) See Appendix A for examples.
6. **List of emergency contact phone numbers** for the building – property manager, engineer, and security company.
7. **Standardized Floor Plans.** See Section 3.6.

3.3 Building Emergency Access Keys, Elevator Switch Keys and Legend Card

3.3.1 Legend Card

One laminated letter size (8 inch X 11 inch or longer) “**High-rise Fire Depository Box Key Tags**” **Legend Card**, specific to that building, shall be provided and maintained in the Fire Depository Box (FDB). The Legend Card, printed in least an 18 font or equivalent lettering so as to be readily legible, shall describe all the required keys and their functions and the respective key tag colors. (See Appendix C for Legend information)

3.3.2 Key Sets

A minimum of **5 sets** of individually detachable keys shall be provided and maintained in the FDB. The sets of keys shall assembled and tagged as indicated in the following:

The key tags shall be of plastic laminate materials in the colors indicated and imprinted with Block lettering of 1/4th inch or equivalent in height, so as to readily legible (See Appendix C, for information on key set arrangements and tag colors). The following keys shall be provided on each of the **5 sets**:

A. Building Emergency Access Keys – for accessing all exit stairs, mechanical and electrical rooms and spaces, roof access doors or hatches, standpipe and sprinkler system control valves, and special hazard spaces.

- **“STAIRWAY ACCESS”** Keys required to access all locked building exit stairs doors shall be provided on **WHITE** tags. All the building exit stairway door locks shall be keyed to the same emergency access key.
- **“MECHANICAL ROOMS”, “ELECTRICAL ROOMS”, and “ELEVATOR EQUIPMENT ROOMS”** Keys required to access all building elevator equipment rooms, air handler (HVAC) mechanical, and electrical panel rooms or spaces shall be provided on **WHITE** tags.
 - **Exception:** Main building electrical service vault rooms require special keys that ONLY the electrical power service provider will possess due to extreme electrical hazards and dangerous nature of equipment within the vaults.
- **“BUILDING ROOF ACCESS”** Keys required for roof access (if not on the building key system) shall be labeled on **WHITE** tags and shall identify which stairway(s) provides roof access.
- **“SPRINKLER/STANDPIPE CONTROL VALVE”** Keys required for sprinkler and standpipe control valves operation. All locking devices on control valves shall be keyed to a the same key that will unlock all sprinkler and standpipe control valves. Control valve keys shall be labeled on **BLUE** tags as **“SPRINKLER/STANDPIPE CONTROL VALVES”**.
- **Additional Special Keys.** Where special keys are needed to access any special process or hazard areas or rooms in the building, such as “Flammable Liquids” Storage Rooms, “Hazardous Materials” Storage Rooms, large File Storage rooms, special equipment spaces, etc. , appropriate access keys shall be provided, properly labeled to identify the specific Floor / Room location and Nature, on **WHITE** tags. Notation of all special keys shall also be included on the Supplemental Information sheet in the FDB.

B. Elevator Switch Keys – There shall be elevator switch keys, provided for all Emergency Fire Service (Phase I) Recall and Emergency Fire Service (Phase II) firefighter elevator car operations.

- When one elevator switch key actuates both elevator recall and car operation functions, it shall be labeled with a **RED** tag as, **“Fire Service Phase I & Phase II”**.
- When there are still two separate elevator switch keys required to operate an elevator in Emergency Fire Service, then the separate **RED** tags shall read:

Key 1 - **“Fire Service Phase I”**

Key 2 - **“Fire Service Phase II”**

C. Additional Elevator Car Keys – When applicable the following keys shall also be provided and labeled as indicated:

- **“Elevator Car Access Panel”** Keys on **ORANGE** tags.
- **“Elevator Car Door Open”** Keys on **RED** tags.
- **“Elevator Emergency Stop/Run”** Keys on **ORANGE** tags. When **“Elevator Emergency Stop/Run”** keys are provided, the **“Elevator Emergency Stop/Run”** key should be individually detachable, to be used in conjunction with the **“Elevator Fire Service Phase II”** key in the event of an elevator malfunction to immediately activate the **Emergency Stop** should the elevator operate incorrectly.

- **“Elevator Inspection On/Off” Keys.** Where no **“Elevator Emergency Stop/Run”** switches are provided in the elevator cars, **“Elevator Inspection On/Off”** switches, Or keys on **YELLOW** tags, shall be provided as a substitute in an emergency.

3.4 Elevator Hoistway Door Keys/Tools

Where applicable, a minimum of 2 each appropriate elevator hoistway door keys/tools for all elevators in the building shall be made provided for Fire Department use in elevator entrapment rescues. (Should multiple types of “Elevator Hoistway Door” keys/tools may be required where different elevator systems exist within a building, each key/tool shall then be labeled with WHITE tags, imprinted with Block lettering of 1/4th inch or equivalent, identifying the appropriate elevator locations.) “Elevator Hoistway Door” keys/tools shall be kept in the Fire Depository Box.

3.5 Independent Service Keys

“Independent Service” keys shall **NOT** be placed in the Fire Depository Box. A minimum of 2 “Independent Service” keys (labeled with BLACK tags), shall be made readily available to the Fire Department for use during Medical Emergencies and/or Elevator Entrapment Rescues. The key tags shall be of plastic laminate materials in the color indicated and imprinted with Block lettering of 1/4th inch or equivalent in height, so as to readily legible.

Where 24-hour in the building security is provided, “Independent Service” keys may be kept secured at the security consol and be readily available for the Fire Department use upon request. Buildings without 24-hour on-site security shall provide a separate key box near the Fire Depository Box location, with the box labeled “EMS Elevator Keys”, and secured with an approved manner.

NOTE: Where elevator “Independent Service” key switches are located behind elevator car access panels, **“Elevator Car Access Panel”** keys on **ORANGE** tags (key tags shall be of plastic laminate materials in the color indicated and imprinted with Block lettering of 1/4th inch or equivalent in height, so as to readily legible), shall be provide on a key ring along with each the “Independent Service” key.

3.6 Standardized Floor Plans

A minimum of 3 sets of standardized floors plans, unless more are deemed necessary by the HFD. All floor plans will include the following information for each floor and/or level when applicable:

- Fire Command Or Central Control Room
- Fire Depository Box
- Fire Alarm Annunciator Panel
- Public Address System Panel
- Enclosed Stairways
- Stairwell Identification
- Tenant Stairs/Escalators
- Two-Way Communication Means
- Fire Hose Valve Connections and Cabinets
- Elevator Lobbies
- Elevator Fire Service Recall Location
- Mechanical, Electrical Service and Air Handlers Rooms
- Sprinkler Control Valves
- Fire Extinguishing Systems
- Computer Telecom Rooms with Special Extinguishing Systems
- UPS Battery Rooms
- Pre-action Protected Areas and Location of Control Valves
- Other Emergency Control or Indicating Systems
- Gas Service Main Shut-off Location

- Smoke Removal Controls
- Emergency Generator

3.7 Supplemental Information Sheet

Supplemental information sheet should contain the following information sections:

3.7.1 Significant building information

Important information needed by the fire department, in a bullet format, on hazards or precautions peculiar to that building. (Ex: Presence of Shunt Trips, Lack of emergency generator, Lack of direct roof access from stairways, Hazardous materials/flammable liquid storage locations)

3.7.2 Pertinent building information

Pertinent to High-rise survey form (HFD 27, Rev. 3/2002), but not contained within the high-rise survey form, or where more narrative information maybe needed.

A. Building information

- Is sprinkler system(s) supplied by building’s standpipe riser
- Number of stairs: pressurized or non-pressurized
- Exit stairway discharge locations
- Identify exit points to public way
- Evacuees will be directed to what location(s)
- Building construction type – Steel, Concrete

B. Elevator information

- Are elevators equipped with “Shunt Trips”.
- Are Sprinklers in elevator machine rooms.
- Are Sprinklers in elevator hoistway.
- Alternate Recall Floors identified.

C. Standpipe system information

- Working pressure on systems with Pressure Reducing Valves (PRV) on fire hose connections.
- Do Fire Department Connections (FDC) supply individual standpipe risers.

SECTION 4 --- LOCATION OF FIRE DEPOSITORY BOX (FDB)

4.1 Fire Depository Box placement

The FDB shall be located within the building’s *Fire Command Center, Central Control Station, or Emergency Control Center* in buildings that have such dedicated rooms. In buildings that lack a Fire Command Center, the FDB shall be located in or near the Main Lobby of the Building, where it can be readily identified and accessed.

4.2 Fire Depository “Key” Box

If 24-hour security is located on site, the Fire Department loose-leaf information binder and floor plans (without keys) may be retained at the security station and a locked FDB of a size that will accommodate all the key sets may be provided.

4.3 Locks on FDB

Locks must be the type approved for use on a “9-1-1” Boxes (openable with a special fire department key).

4.4 Double Locking Boxes

Double Locking FDBs shall use an approved “9-1-1” Lock as one of the locking devices and may use a separate building provided lock as the other locking device, to facilitate property personnel’s access into the box to update information and /or replace keys as needed.

SECTION 5 --- KEY BOX / FIRE DEPOSITORY BOX PERMIT

5.1 Permit Requirement

A fire department “**KEY BOX / FIRE DEPOSITORY BOX**” permit is required for the lock box. This permit shall be renewed annually, and a copy of the permit shall be posted in or near the FDB.

5.2 Permit Information

New Key Box / Fire Depository Box permits may be obtained from the Houston Fire Department Permit Office, 1205 Dart Street (off of Houston Avenue); Telephone: 713-247-8557. Annual permit renewal notices are mailed out by the Fire Department Permit Section, however, it is the permit holder’s responsibility to renew all permits prior to the stated expiration date.

APPENDIX A

Example No 1. Elevator Riser Diagram: Generic Elevator and Stairwell Diagram

Floor	Stair A	Elevator Service																Frghts	Stair B	Floor			
		High Bank				Middle Bank				Low Bank													
PH																				PH			
35						7	8	9	10	11	12	13	14	15	16	17	18				35		
34																							34
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1		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		1
B																				B			

----- Elevator Car No.s -----



Elevator Service
No elevator service in bank
Floor of Recall



Stairwell
Stairwell Re-Entry
Floor of Alternate Recall

Example No. 2 Elevator Riser Diagram: Elevator and Stairwell Diagram

		Elevator Service					
Floor Level	Stair A	Freight Elevator Car: 13	High Bank Elevator Cars: 1-4	Mid-Bank Elevator Cars: 4-8	Low Bank Elevator Cars: 8-12	Stair B	Floor Level
24	Reentry			XXXXXX	XXXXXX	Reentry	24
23				XXXXXX	XXXXXX		23
22				XXXXXX	XXXXXX		22
21				XXXXXX	XXXXXX		21
20	Reentry			XXXXXX	XXXXXX	Reentry	20
19				XXXXXX	XXXXXX		19
18				XXXXXX	XXXXXX		18
17			Alt. Recall	XXXXXX	XXXXXX		17
16			XXXXXX		XXXXXX		16
15	Reentry		XXXXXX		XXXXXX	Reentry	15
14			XXXXXX		XXXXXX		14
13			XXXXXX		XXXXXX		13
12			XXXXXX		XXXXXX		12
11			XXXXXX		XXXXXX		11
10	Reentry		XXXXXX		XXXXXX	Reentry	10
9			XXXXXX	Alt. Recall	XXXXXX		9
8			XXXXXX	XXXXXX			8
7			XXXXXX	XXXXXX			7
6			XXXXXX	XXXXXX			6
5	Reentry		XXXXXX	XXXXXX		Reentry	5
4			XXXXXX	XXXXXX			4
3			XXXXXX	XXXXXX			3
2		Alt. Recall	XXXXXX	XXXXXX	Alt. Recall		2
1	Reentry	Recall	Recall	Recall	Recall	Reentry	1
B	Reentry		XXXXXX	XXXXXX	XXXXXX	Reentry	B

Elevator Service	
No Elevator Service	XXXXX
Primary Recall Floor	Recall
Alternate Recall Floor	Alt. Recall
Re-entry Floor	Reentry

APPENDIX B

INSTRUCTIONS FOR ELEVATOR OPERATION

ELEVATOR MACHINE RM. SPRINKLED:	_____	_____	
	yes	no	
ELEVATOR SHAFTS SPRINKLED:	_____	_____	
	yes	no	
SHUNT TRIPS:	_____	_____	
	yes	no	
PHASE 1 ELEVATOR RECALL	_____	_____	_____
	auto	manual	both
PRIMARY RECALL FLOOR (Designated Landing)	_____		
ALTERNATE RECALL FLOOR (Alternate Landing)	_____		

To recall elevators: Specify manual recall procedure. *If doors close after being recalled, specify how to re-open and how long they remain open.

To operate car: **Specify if cab fire key (Phase Two) must be turned to “on” to operate elevators. Specify if different keys are used for Phase One and Phase Two.

To travel to desired floor: Explain how to travel to the desired floor. Specify if the first step of this action requires the doors be open or closed.

To close door: Specify how to close doors completely to remain closed.

To open door: Specify how to open doors completely to remain open.

To hold car at floor: Specify how to retain the car at desired floor. Can keys be removed?

To cancel floor selection: Specify how to cancel the floor selected and/or choose another floor.

To return car to designated or alternate landing:
Specify how to return the car to the recall floor. Specify if the key can be removed.
Specify if a firefighter or other person must accompany the car to the recall floor.

PROVIDE INSTRUCTIONS FOR EACH (DIFFERENT) BANK OF ELEVATORS THAT MAY OPERATE INDEPENDENTLY FROM ANOTHER.

* Buildings constructed under Houston’s high-rise code, between 1979 and 1997, may have elevator doors that open for a predetermined time and then close.

** The ASME A17.1, 1984 edition, requires a *ON-OFF-HOLD* position switch in the elevator cars. Switches must be changed if they have a *BYPASS* position, disallowed in 1976.

APPENDIX C

KEY SETS WITH IDENTIFICATION TAGS

There shall be 5 separate “quick release” key holders as pictured below, with the keys as described below for a total of 5 sets of keys all appropriately labeled provided and maintained in the Fire Depository Box.



There shall be 5 separate “quick release” holders with the keys described below for a total of 5 sets of all keys appropriately labeled provided and maintained in the Fire Depository Box.

C-1 Key Set Arrangements:

5 sets of building emergency access keys as described below shall be provide for Fire Department use in the FDB of all high-rise buildings:

1. Each key in will have a 7/8-inch (13 mm) split key ring through it attaching the key to the appropriate colored plastic laminate identification tag.
2. A “quick release” key holder with one button operation that has 1-inch (25 mm) split rings on each end will be used.

a) At one end of this “quick release” key holder, a 2-inch (50 mm) split ring will be attached to the 1-inch (25 mm) split ring that has the following building access keys:

- Stairway key & **White** Tag - on a 7/8-inch (13 mm) split ring
- Roof Access key & **White** Tag - on a 7/8-inch (13 mm) split ring
- Mechanical/Electrical Room key & **White** Tag - on a 7/8-inch (13 mm) split ring
- Elevator Equipment Room key & **White** Tag - on a 7/8-inch (13 mm) split ring
- All special access keys & **White** Tags – on a 7/8-inch (13 mm) split rings
- Sprinkler/Standpipe key & **Blue** Tag - on a 7/8-inch (13 mm) split ring

b) The other end this “quick release” holder will have attached to the 1-inch (25 mm) split ring the another 2-inch (50 mm) split ring with the following keys. On this 2-inch (50 mm) split ring only the following elevator keys (if applicable to that specific building) with corresponding plastic laminated colored I. D. tags :

- Fire Service - Phase 1 & Phase 2 - **Red** Tags - on a 7/8-inch (13 mm) split rings
- Elevator Car Door - **Red** Tag - on a 7/8-inch (13 mm) split ring
- Elevator Inspection On/Off – **Yellow** Tag - on a 7/8-inch (13 mm) split ring
- Elevator Stop/Run - **Orange** Tag - on a 7/8-inch (13 mm) split ring
- Elevator Car Access Panel - **Orange** Tag - on a 7/8-inch (13 mm) split ring
- Elevator Car Emergency Power Selector - **Green** Tag - on a 7/8-inch (13 mm) split ring

Scale: 7/8 inch = Approximately 13 mm
1 inch = Approximately 25 mm

NOTE: “Independent Service” keys (pictured for labeling purposes only) shall **NOT** be attached to any of the above key sets, **nor** shall these keys be kept in the Fire Depository Box. “Independent Service” keys shall kept in a secured location or separate key box (See Section 3.5).

C-2 Key Tag Legend Card:

Laminated letter size (8 inch X 11 inch) “High-rise Fire Depository Box Key Tags” Legend Card shall be provided and maintained in the Fire Depository Box (FDB). The Legend Card, printed in least an 18 font or equivalent lettering so as to be readily legible, shall describe all the required keys and their functions and the respective key tag colors. (See example of Legend Card below)

High-rise Depository Box Key Tags

Fire Service
Phase 1

Phase 1 recalls Elevator Cars to predetermined floor.

Fire Service
Phase 2

Phase 2 places Elevator Car in Firefighter control.

Fire Service
Phase 1 & 2

Phase 1 and Phase 2 uses same key.

Elevator
Car Door

Opens Elevator Car Doors after elevator has been recalled in Phase 1 and doors have previously opened and closed.

Elevator
Inspection On/Off

Can be used to stop elevator when there is no Emergency Stop / Run Switch.

Elevator Emergency
Stop/Run

Allows you to stop elevator at a point in elevator shaft.

Elevator Car
Access Panel

Opens panel containing Emergency Stop/Run Switch and/or Independent Service Switch.

Elevator Emergency
Power Selector

Allows you to select which Elevator Car will operate under Emergency Power.

Building Sprinkler &
Standpipe Locks

Unlocks Sprinkler / Standpipe Control Valves.

**Building
Stairway Doors**

Unlocks All Stairway doors.

**Building
Roof Access - Stair A**

Roof access in Stairway (Example A, B etc.)

**Building
Mechanical Rooms**

Unlocks Mechanical / HVAC room doors.

**Building
Electrical Rooms**

Unlocks Electrical Panel Closet/Room doors.

**Elevator
Rooms**

Unlocks Elevator Equipment room doors.

REFERENCES

1. City of Houston *Fire Code*, International Fire Code, 2000 edition as amended
2. City of Houston *Construction Codes*, all editions
3. LSB Standard 05, “Key Boxes”
4. American Society of Mechanical Engineers (ASME) , Standard No. A17.3, “Safety Code for Elevators and Escalators”, 1993 edition